

भारतीय मानक

टेमफोस, इम्यूलसीफियबल सांद्र (ई.सी.) — विशिष्टि
(पहला पुनरीक्षण)

Indian Standard

TEMEPHOS, EMULSIFIABLE
CONCENTRATE (EC) — SPECIFICATION
(*First Revision*)

ICS 65.100.30

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Pesticides and Pesticides Residues Analysis Sectional Committee had been approved by the Food and Agriculture Division Council.

Temephos is used in public health programme. It is also used for controlling insect pests of agricultural importance.

Temephos, emulsifiable concentrate is generally manufactured to contain 50 percent (*m/m*) of temephos.

In the formulation of this standard, due consideration has been given to the provisions of the *Insecticides Act*, 1968 and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under the *Insecticides Act* and Rules, wherever applicable.

This standard was first published in 1977 and is being revised to incorporate the latest technological changes that have taken place since. Heat stability test has been deleted and the marking and sampling clauses have also been modified.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEMEPHOS, EMULSIFIABLE CONCENTRATE (EC) — SPECIFICATION (*First Revision*)

1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for temephos, emulsifiable concentrates.

2 REFERENCES

The standards listed below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below:

<i>IS No.</i>	<i>Title</i>
1070 : 1992	Reagent grade water — Specification (<i>third revision</i>)
1448 [P : 20] : 1998	Methods of test for petroleum and its products: [P : 20] Determination of flash point by Abel apparatus (<i>second revision</i>)
6940 : 1982	Methods of test for pesticides and their formulations (<i>first revision</i>)
8190 (Part 2) : 1988	Requirements for packing of pesticides: Part 2 Liquid pesticides (<i>second revision</i>)
8701 : 2012	Temephos, technical — Specification (<i>second revision</i>)
10627 : 1983	Methods for sampling of pesticidal formulations

3 REQUIREMENTS**3.1 Constituents**

3.1.1 The material shall consist of temephos, technical dissolved in suitable solvent(s) together with emulsifying agent(s) and with or without stabilizer(s).

3.1.2 Temephos, technical employed in the formulation of the material shall conform to IS 8701.

3.2 Physical**3.2.1 Description**

The material shall be homogenous and stable liquid. Sediments and/or suspended matter shall be negligible.

On dilution with water, it shall readily form an emulsion, suitable for spray.

3.2.2 Cold Test

No turbidity or separation of solid and/or oily matter shall occur when the material is subjected to the cold test at 10°C as prescribed in **13.1** of IS 6940. Introduction of seeding crystal is not necessary for the test.

3.2.3 Flash Point (Abel)

When determined by the method prescribed in IS 1448 [P : 20], the flash point of the material shall be above 24.5°C.

3.2.4 Emulsion Stability

Any separation, including creaming at the top and sedimentation at the bottom, of 100 ml of emulsion prepared in standard hard water with 5.0 ml of the concentrate for public health use and with 2.0 ml of concentrate for agricultural use, shall not exceed 2.0 ml when tested by the method prescribed in **13.3** of IS 6940.

3.3 Chemical

The material shall comply with the chemical requirements specified in **3.3.1** and **3.3.2**.

3.3.1 Temephos Content

When determined by the method prescribed in Annex A of IS 8701, the observed temephos content, percent (*m/m*) of any of the samples shall not differ from the declared nominal value by more than the tolerance limits indicated below:

<i>Nominal Value, Percent</i>	<i>Tolerance Limits, Percent</i>	
Up to 9	+10 -5	} of the nominal value
Above 9 and below 50	±5	
50 and above	+5 -3	

3.3.1.1 The actual value of temephos content in the formulation shall be calculated to the second decimal place and then rounded off to first decimal place before applying the tolerances given in **3.3.1**.

3.3.2 Acidity

When determined by the method prescribed in 13.5 of IS 6940, acidity (as H_2SO_4) of the material shall not be more than 0.5 percent by mass.

4 PACKING

The material shall be packed in clean and dry containers made of mild steel or tin plate or aluminium. Mild steel or tin plate containers shall be suitably and properly lacquered from inside. The container shall also meet the general requirements given in IS 8190 (Part 2).

5 MARKING

5.1 The containers shall be securely closed and the following information shall be marked legibly and indelibly on each container in addition to any other information as is necessary under the *Insecticides Act*, 1968 and Rules framed thereunder:

- a) Name of the material and its end use;
- b) Name and address of the manufacturer;
- c) Batch number;
- d) Date of manufacture;
- e) Date of expiry;
- f) Net quantity;
- g) Nominal temephos content, percent (m/m);
- h) Cautionary notice worded as in the *Insecticides Act*, 1968 and Rules framed thereunder; and
- j) Any other information required under the *Standards of Weights and Measures (Packaged Commodities) Rules*, 1977.

5.2 BIS Certification Marking

The product may also be marked with the Standard Mark.

5.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

6 SAMPLING

When freshly manufactured material in bulk quantity and/or the retail pack of the formulated product is/are offered for inspection, representative sample of the material shall be drawn and tested as prescribed in IS 10627, and if tested within 90 days of its date of manufacture, the criteria for conformity shall be that the contents in percent (m/m), shall not be less than the declared nominal value. The upper limit for conformity shall be the same as those given in 3.3.1.

When the material is offered for inspection after 90 days of its manufacture, sampling shall be done as prescribed in IS 10627. However, the criteria for conformity of the material, when tested, shall be the limits of tolerances, as applicable over the declared nominal value, and given under 3.3.1.

7 TESTS

7.1 Tests shall be carried out by the appropriate methods referred to in 3.2.2 to 3.2.4, 3.3.1 and 3.3.2.

7.2 Quality of Reagents

Unless specified otherwise, pure chemicals and reagent grade water (*see* IS 1070) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities, which affect the results of analysis.

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Amendments Issued Since Publication

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